



Revision Control

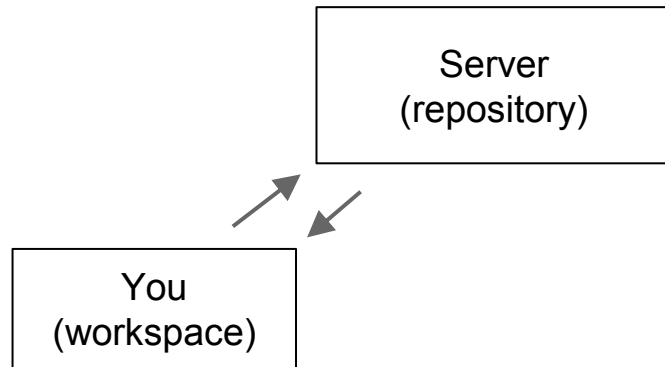
(short version)

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September 10, 2014

TLAs

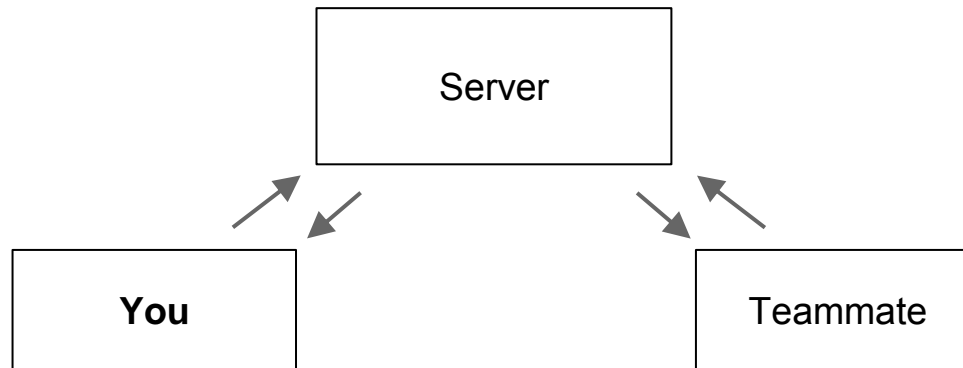
- RCS - Revision Control System
 - aka Source Control Management (SCM)
 - aka Source Control
 - aka Version Control
- cvs - Concurrent Versions System
- svn - Subversion
- p4v - Perforce
- git - Git
- hg - Mercurial

What is Revision Control?



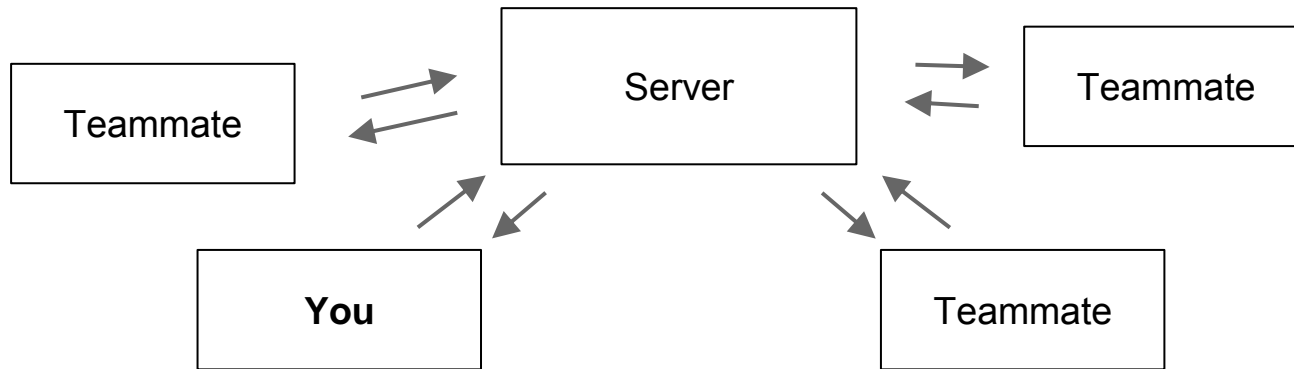
- You copy files from a central server
- You make changes to your local files
- You copy files to the central server

What is Revision Control?



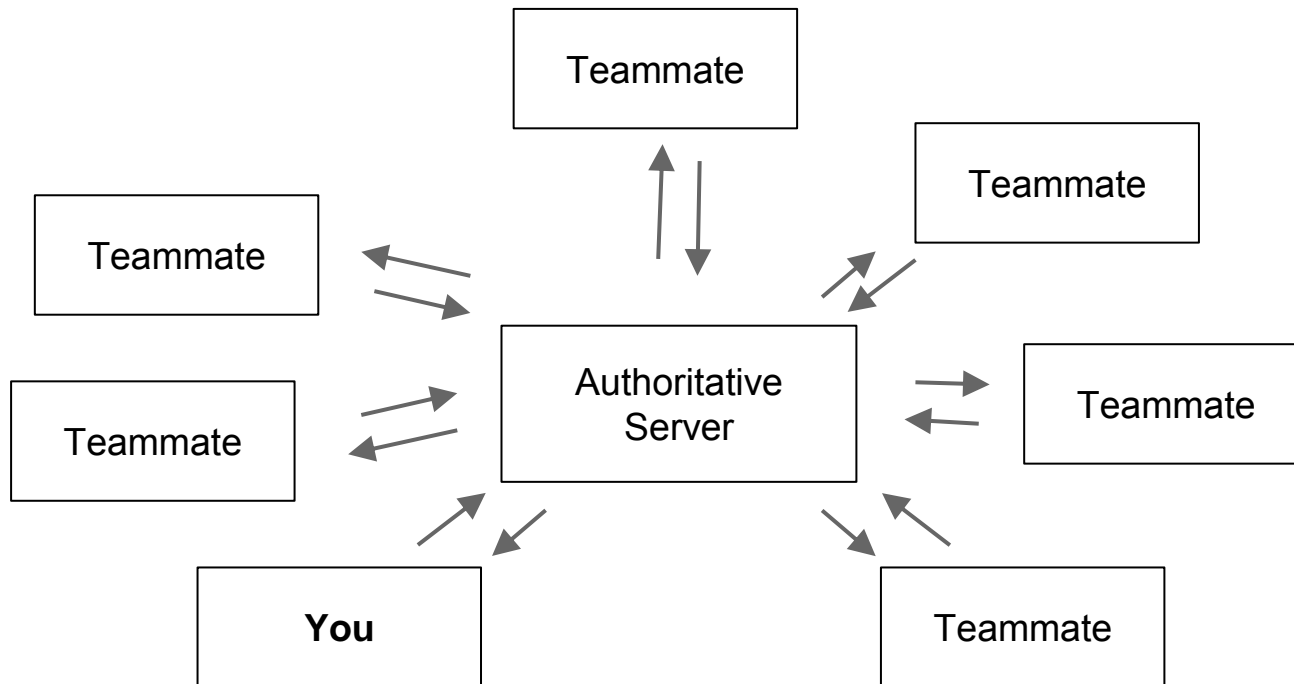
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What is Revision Control?



- You copy files from a central server
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What is Revision Control?



What is Revision Control?

- A backup system
- A way to share code
- A history of your project
- An undo button
- A way to simultaneously edit the same files

Operations

- Copy from server
- Submit changes to server
- Check status of local files
- Lock files so no one else can change them
- Compare different versions of the same file
- Merge changes by two different people

Operations

- Copy from server
 - aka `get update pull checkout` *revert* (down)
- Copy changes to server
- Check status of local files
- Lock files so no one else can change them
- Compare different versions of the same file
- Merge changes by two different people

Operations

- Copy from server
- Copy changes to server
 - aka `submit commit put push checkin (up)`
- Check status of local files
- Lock files so no one else can change them
- Compare different versions of the same file
- Merge changes by two different people

Operations

- Copy from server
- Copy changes to server
- Check status of local files
 - aka [status](#)
- Lock files so no one else can change them
- Compare different versions of the same file
- Merge changes by two different people

Operations

- Copy from server
- Copy changes to server
- Check status of local files
- Lock files so no one else can change them
 - aka [lock](#)
- Compare different versions of the same file
- Merge changes by two different people

Operations

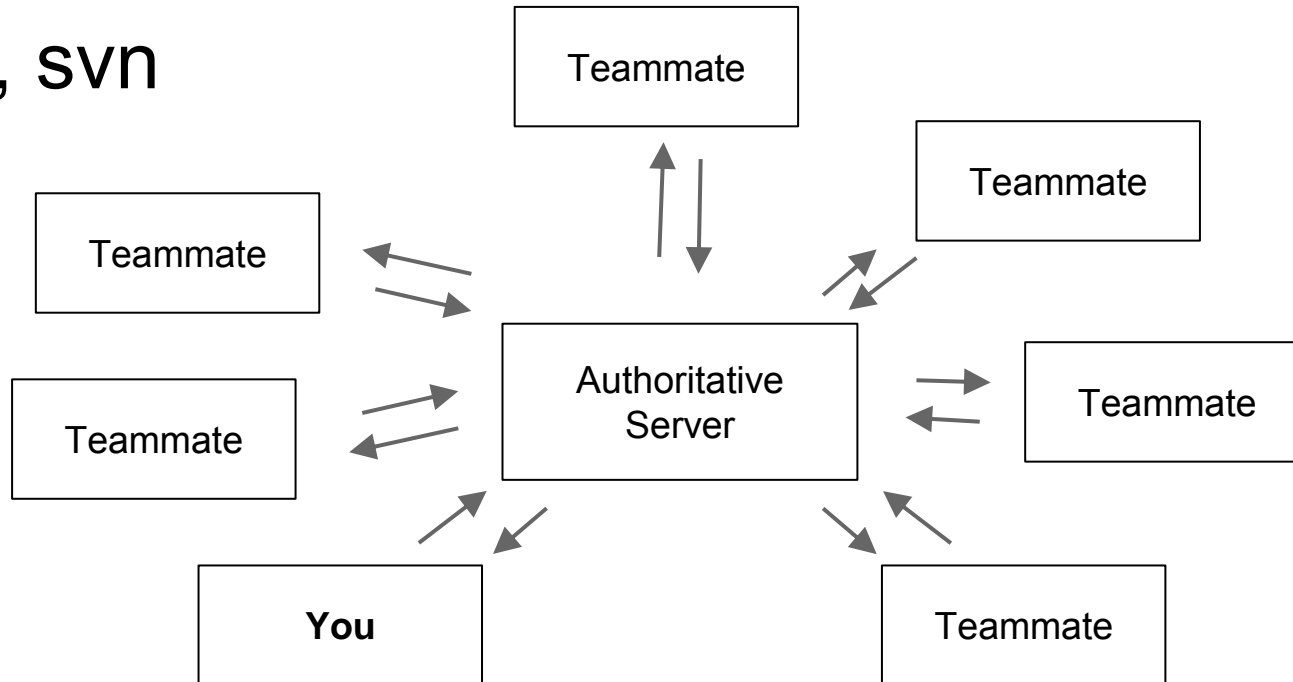
- Copy from server
- Copy changes to server
- Check status of local files
- Lock files so no one else can change them
- Compare different versions of the same file
 - aka [diff](#)
- Merge changes by two different people

Operations

- Copy from server
- Copy changes to server
- Check status of local files
- Lock files so no one else can change them
- Compare different versions of the same file
- Merge changes by two different people
 - merge and then resolve

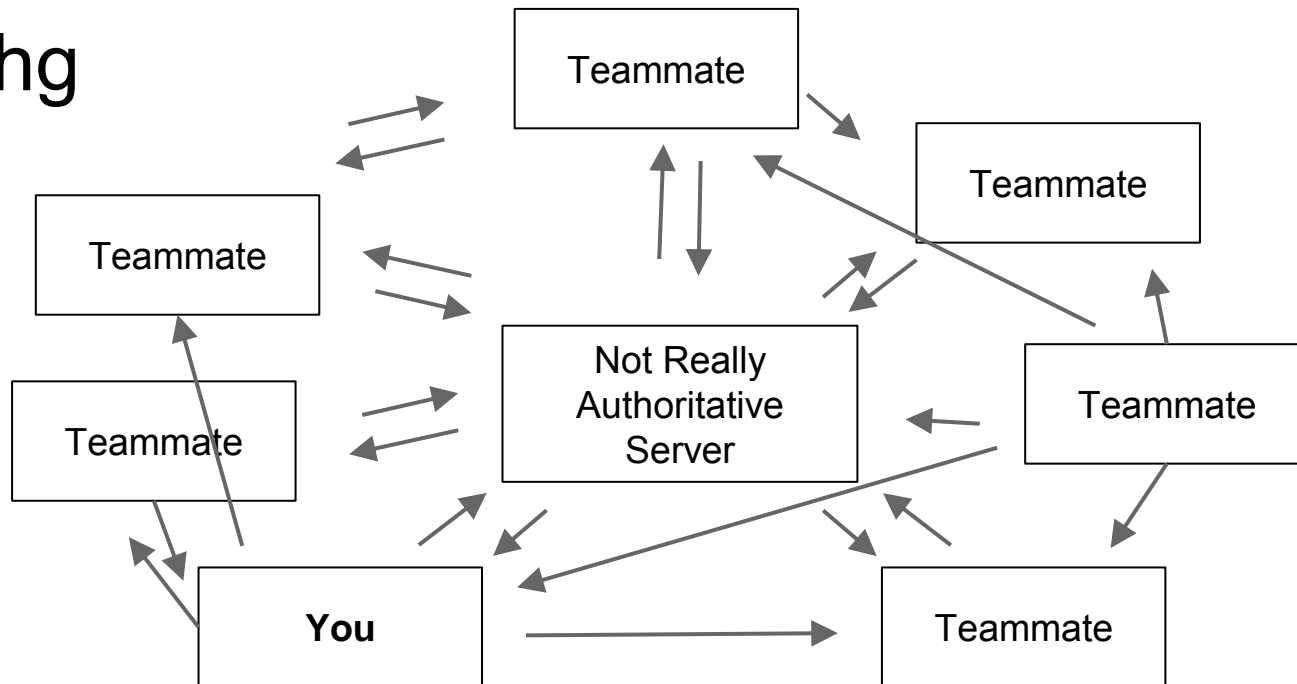
Remember this?

p4v, svn



Distributed Source Control

git, hg



Don't Break The Build!!!

- The version of the project in your authoritative server should ***always*** build and run.
- With 0 errors.
- And 0 warnings.
- Use a check build

Tips

- **ignore** unneeded files
 - don't submit object files!
- **lock** binary files



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